

## **REMARKS**

Reconsideration and withdrawal of the rejections of the claimed invention is respectfully requested in view of the amendments, remarks and enclosures herewith, which place the application in condition for allowance.

### **I. STATUS OF CLAIMS AND FORMAL MATTERS**

Claims 1-6, 15, 16, and 18-21 are pending in this application. New claim 21 have been added. Claim 21 is essentially claim 1 with the transition phrase “comprising”.

Claim 1 has been amended by incorporating the elements of previous claims 5 and 7. Support for the amendments to claims 3 and 5 can be found, e.g., in paragraph [0029] of the publication of this application. Claim 1 and 21 refer to the cellulose ether as being fibrous which is supported e.g., in paragraph [0026] of the publication of this application.

No new matter has been added by this amendment.

It is submitted that the claims, herewith and as originally presented, are patentably distinct over the prior art cited in the Office Action, and that these claims were in full compliance with the requirements of 35 U.S.C. § 112. The amendments of the claims, as presented herein, are not made for purposes of patentability within the meaning of 35 U.S.C. §§§§ 101, 102, 103 or 112. Rather, these amendments and additions are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

### **II. THE OBJECTIONS TO THE CLAIMS HAVE BEEN OVERCOME**

The objections to claims 5-7 and 20 have been overcome in light of the amendment to claim 1.

### **III. THE 35 U.S.C. 112, 1<sup>st</sup> PARAGRAPH REJECTION HAS BEEN OVERCOME**

Claims 1-7, 15, 16, and 18-20 were rejected as allegedly lacking adequate written description. The applicants request reconsideration of this rejection for the following reasons.

Claim 1 has been amended to include additional steps for the claimed invention. Note that the addition of water is part of the filtering process and the distribution with a sieve does not change the end product formed by the claimed process, i.e. prior to distribution with the sieve, the product formed still has a particle distribution rate of greater than 99% for the particles of less than 100 mesh in size; sieving merely separates out the particles greater than or equal to 100 mesh size.

#### **IV. THE 35 U.S.C. 112, 2<sup>nd</sup> PARAGRAPH REJECTION HAS BEEN OVERCOME**

Claims 1-7, 15, 16, and 18-20 were rejected as allegedly being incomplete. The applicants request reconsideration of this rejection in light of the amendments to the claims (see explanation in section II. above).

#### **V. THE 35 U.S.C. 103(a) REJECTION HAS BEEN OVERCOME**

**A. Claims 1-4, 15, 16, 18, and 19 were rejected as allegedly being obvious by Onda et al. (US 4,091,205 - “Onda”) in view of Haidasch et al. (US 3,251,825 - “Haidasch”).** The applicants request reconsideration of this rejection for the following reasons.

##### **1. All claim limitations have not been taught**

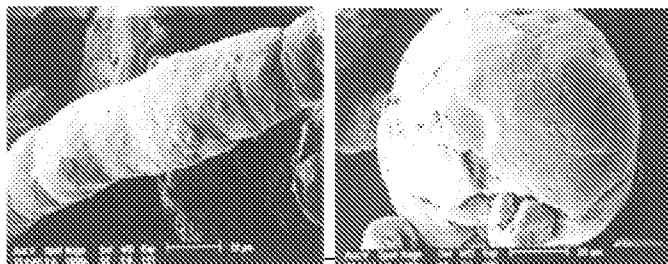
The Office Action states that combination of Onda/Haidasch teaches all of the process elements of the applicants’ claimed invention. However, this is incorrect. As noted in the chart below, Onda does not teach the requisite combination of temperature and time as indicated in the applicants’ claimed invention and the Haidach reference does not remedy the deficiency of Onda.

Step Temp Time	ONDA	Applicants’ Claim 1 (bold indicates overlap with ONDA)	Applicants’ Claim 2 (bold indicates overlap with ONDA)
Primary	40°C 120 min	<b>40-60°C</b> 10-60 min	<b>40-50°C</b> 10-60 min
Secondary	50°C 60 min	<b>45-75°C</b> <b>60-180 min</b>	55-65°C <b>60-180 min</b>
Tertiary	80°C 60 min	<b>80-90°C</b> <b>60-180 min</b>	85-90°C <b>60-180 min</b>
# of difference		<b>1</b>	<b>3</b>

In addition, neither Onda nor Haidasch teach the absence of a post-process milling/grinding step (which address in further detail in section B. below).

With respect to claim 3, the etherifying agent is a **combination** of an alkyleneoxide **AND** an alkylhalide which is not taught by Onda or Haidasch.

With respect to the claim as amended, the applicants process produces powdered cellulose ethers which are fibrous in shape rather than spherical as is taught by Onda and Haidasch (see comparative structure below – figure on the left is the cellulose ether of the invention; figure on the right is a conventional spherical cellulose ether represented by the art):



Onda and Haidasch are directed toward these type of spherical cellulose ethers and as such there is no teaching or suggestion to form the fibrous cellulose ethers of the applicants' claimed invention.

## **2. Reversing order of pulverization not taught in the prior art**

With regard to the difference regarding a pre-process pulverization step as in the applicants' claimed invention vs. a post-process milling step as in Onda, it was asserted that "[i]t has been held that merely reversing the order of steps in a multi-step process is not a patentable modification absent unexpected or unobvious results." (citations omitted – page 5, lines 15-17 of the Office Action).

However, the fact that the applicants were able to obtain powdered cellulose ethers by initially pulverizing the cellulose ether starting material and without a further grinding step *is an unexpected result* in light of the state of the art.

Traditional processing of cellulose ethers (such as those taught by Onda, Strange (U.S. Patent 3,873,518) and Warner et al. (U.S. Patent 4,458,068) included a post-processing milling step to achieve powdered cellulose ethers because pre-processing pulverization could not sustain throughout the process the smaller cellulose ether sizes generated by the pulverization.

Process for making powdered cellulose ethers (especially those with the requisite bulk density and/or particle distribution rate of claims 15 and 16), would result in problems with agglomeration which is the reason milling/grinding was normally reserved for the end of the process, see e.g. paragraph [0006] from U.S. Patent Application Publication 2008-0207893. See also U.S. Patent 7,425,589 wherein an improved method of modifying wet cellulose ethers still requires a grinding step at the end of their process.

Surprisingly, the specific process steps claimed by the applicants allows for the formation of powdered cellulose ethers without having to resort to a post-process milling/grinding step as conventionally used in the art.

### **3. Closing**

The applicants' claims as amended are unobvious over Onda and Haidasch because: (1) all claim limitations have not been taught, (2) Onda and Haidasch's process form a different type of cellulose ether (spherical rather than fibrous) and (3) the state of the art would not have expected the production of powdered cellulose ethers using a pre-process a pulverization step and not having a post-processing milling/grinding step.

**B. Claims 5-7 and 20 were rejected as allegedly being obvious by Onda et al. (US 4,091,205 - "Onda") in view of Haidasch et al. (US 3,251,825 - "Haidasch") further in view of Hitchin et al. (GB 909,039).**

As claims 5, 6 and 20 are ultimately dependent upon claims rejected above in A. and Hitchin is relied upon only for the use on an inert diluent, the rejection of claims 5, 6 and 20 would stand and fall with the rejection made above.

**CONCLUSION**

In view of the remarks and amendments herewith, the application is believed to be in condition for allowance. Favorable reconsideration of the application and prompt issuance of a Notice of Allowance are earnestly solicited. The undersigned looks forward to hearing favorably from the Examiner at an early date, and, the Examiner is invited to telephonically contact the undersigned to advance prosecution.

Respectfully submitted,  
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Enclosure:     U.S. Patent 3,873,518  
                     U.S. Patent 4,458,068  
                     U.S. Patent 7,425,589  
                     U.S. Patent 2008-0207893